

Issue of Acute Respiratory Infections and Cigarette Smoking

M. Hariprasad*

Division of Pulmonary, Mahavir Medical College, Vikarabad, Telangana, India

Editorial

Tobacco taxes generate enormous revenue for governments, and the tobacco industry employs millions of people worldwide; however, tobacco kills half of its users and places a heavy, preventable burden on health-care systems. Despite assurances from many tobacco companies that smoke-free devices are safer than traditional cigarettes, the tobacco epidemic is set to worsen.

The issue of tobacco smoking and the risk of acute respiratory infection is once again a hot topic during the coronavirus disease (COVID-19) pandemic. Much of the global focus on tobacco prevention and cessation is on non-infectious respiratory, cardiovascular, and cancer deaths, and much of the e-cigarette promotional rhetoric revolves around potentially saving billions of lives that would otherwise be lost due to these non-infective outcomes. However, the risk of infectious complications is the primary focus and concern in low- and middle-income countries, particularly during pandemics. During lockdown periods, some countries, such as South Africa and India, have prohibited the sale of tobacco products.

It is unclear whether this ban is justified and supported by evidence of harm from the combined effect of tobacco use and COVID-19, and whether current smokers can be expected to simply stop smoking during a pandemic.

There is strong evidence that several mechanisms may increase the risk of respiratory tract infections in smokers. Tobacco use weakens the immune system and nearly doubles the risk of tuberculosis infection (both latent and active) due to immune function impairment; specifically, smoking affects the macrophage and cytokine response, and thus the ability to contain infection. Similarly, smokers are three to five times more likely to contract pneumococcal, legionella, or mycoplasma pneumonia. Tobacco and e-cigarette users have increased pneumococcal adherence and colonisation due to upregulation of the pneumococcal receptor molecule (platelet activating receptor factor); smokers are also five times more likely to contract influenza than non-smokers.

The challenge for COVID-19 studies is to have large enough sample sizes to allow for the correction of confounders such as hypertension, diabetes, obesity, race, and chronic obstructive pulmonary disease (COPD), all of which may be linked to tobacco use and poor outcomes. There is currently no evidence that e-cigarette use increases the risk of SARS-CoV-2 infection.

It is possible that some people will use the period of self-isolation and lockdown restrictions during this pandemic as an opportunity to quit smoking, but realistically, only a small percentage will succeed. The increased stress of a potentially fatal disease, the possibility of losing employment, feelings of insecurity, confinement, and boredom may increase the desire to smoke for the majority.

*Address for Correspondence: M. Hariprasad, Division of Pulmonary, Mahavir Medical College, Vikarabad, Telangana, India, E-mail: Hariprasadmac88@gmail.com

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The world should strive to be tobacco-free, but given the complex web of finance, taxes, jobs, lobbying, and payments made to officials, this is unlikely to happen anytime soon. However, the fight against tobacco use must continue by assisting smokers in quitting successfully and permanently. Avoiding COVID-19 now but developing lung cancer or COPD later is not a desirable outcome; thus, any short-term interventions must be long-term sustainable.

Ways to Increase the Success of Smoking Cessation Attempts in the Current Situation

Although the current COVID-19 outbreak may limit the availability of face-to-face help and prescription drugs, there is a wealth of research supporting the efficacy of various types of smoking cessation support. When used safely, even during smoking relapses, nicotine replacement therapy (available as patches, gum, lozenges, and sprays) enhances the likelihood of quitting smoking for good by about 50%. In pharmacies and supermarkets, nicotine replacement medicines are commonly accessible. Evidence from randomised controlled trials demonstrates that combining two types of NRT (a patch and a faster-acting form like gum or lozenge) enhances the likelihood of stopping compared to utilising a single type and is just as efficient as prescription stop-smoking drugs.

Long-term stop rates are also increased when medication is used in conjunction with behavioural help or on its own. There is solid evidence to support the idea that telephone counseling—like that offered by national quitlines, for instance helps more people stop. Additionally, there is proof that internet, text message, and print-based interventions raise the rate of quitting. The resources assessed include those that are accessible from reliable sources, like governments and healthcare organisations.

Although giving up smoking might be unpleasant, there is evidence to suggest that doing so is beneficial for one's mental health. There is proof that gradually reducing cigarette use before quitting is just as beneficial for quitting smoking for good as quitting cold turkey. However, there is no proof that cutting back without quitting is advantageous. It is safe to use NRT while cutting back on smoking and research indicates that taking a fast-acting version (like gum or lozenges) to replace cigarettes can boost the likelihood of success [1-5].

Conflict of Interest

The author declares that there is no conflict of interest associated with this manuscript.

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